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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,201	09/29/2000	Sanae Tagami	197893US0	1428

22850 7590 07/28/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 07/28/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,201

Applicant(s)

TAGAMI ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-8 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 is/are allowed.
- 6) ☒ Claim(s) 3-8, 11-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 12 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 17, 2003 has been entered. The amendment dated May 2, 2003, paper no. 14, has been entered as requested in the request for continued examination. Claims 2, 9, and 10 were cancelled. Claims 3-7, 11, and 12 were amended and new claims 13-17 were added. Claims 3-8 and 11-17 are pending. Compound 3 wherein one of X1 to Xi is an alkenyl group is the current species under consideration.

### ***Specification***

2. The abstract of the disclosure is objected to because the abstract is two paragraphs in length and may be only one paragraph in length. Correction is required. See MPEP § 608.01(b).

### ***Response to Amendment***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claim 3 is objected to because of the following informalities: The word "and" should be changed to "or". Appropriate correction is required.

5. It appears a semicolon should be added between the phrases "to 30 carbon atoms" and "a pair of adjacent groups" in line 8 of claim 13 of applicant's response.

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6. The rejections of claims 2-12 under 35 USC 112, second paragraph, set forth in paper no. 10 (mailed December 2, 2002), paragraphs 6-11, are withdrawn due to the cancellation of claims 2, 9, and 10 and the amendments to the claims.

7. The rejection of claims 2, 9, and 10 under 35 USC 102(b) as being anticipated by Nakatsuka et al. (JP 10-168445) is withdrawn due to the cancellation of these claims.

8. Claims 3-6, 11, and 12 are again rejected and new claims 13 and 15 are rejected under 35 USC 102(b) as being anticipated by Nakatsuka et al. (JP 10-168445) Nakatsuka discloses an organic compound layer between a pair of electrodes comprising formula (2), which reads upon instant species compound 3 (see Japanese patent page (3)). The derivative according to the formula is suitable as a hole-injection transportation component or as a luminescent component per instant claims 3, 11, and 12 (see JPO translation paragraph [0019] for reference). A mixed luminous layer containing the derivative is taught per instant claim 4 (see paragraph [0026] and [0046]). Per independent claim 13, Nakatsuka et al. discloses quinoline metal complexes in combination with the inventive fluoranthene compounds (see paragraphs [0027] to [0029]). Nakatsuka et al. teach a protective layer may be applied to an electrode which comprises an inorganic material such as a metal oxide per instant claims 5 and 11 (see paragraph [0037]). Per instant claims 6 and 12, Nakatsuka teaches a multicolored device that may comprise red dyes such as rubrene or Nile red as part of the luminous layer (see paragraph [0026]). Nakatsuka is deemed to anticipate all the limitations of claims 3-6, 11, 12, 13, and 15.

9. Claims 7 and 8 are again rejected under 35 USC 103(a) as being unpatentable over Nakatsuka et al. (JP 10-168445). Nakatsuka et al. is relied upon as set forth above for the rejection of independent claim 13. Nakatsuka et al. fails to teach the organic layer containing

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formula (2) may also contain isomers of formula (2). An isomer of formula (2) is an obvious variant of formula (2). It would be obvious to one of ordinary skill in the art to incorporate formula (2) and isomers thereof with a reasonable expectation of success, because an isomer of formula (2) would be expected to perform the same hole transporting and luminescent functions as formula (2). Furthermore, the Nakatsuka teaching of formula (2) clearly discloses isomeric compounds (various substituent possibilities for X1 – X14); it would have been obvious to use derivatives taught for the same purpose in combination. In addition, because formula (2) is the same as applicants' compound 3, the wavelength properties cited in claim 8 are deemed to be inherent properties of formula (2) and isomers thereof. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to make a device as recited in instant claims 7 and 8, because all limitations of these claims are generally taught by Nakatsuka et al.

***Allowable Subject Matter***

10. Claim 14 is allowed for the reasons set forth in paper no. 5, paragraph 10.
11. Claims 16 and 17 are objected to as being dependent upon a rejected base claim. The compounds of claims 16 and 17 which read upon the species presently under consideration, compound 3 wherein at least one substituent is an alkenyl group, have been found allowable. (The compounds of claims 16 and 17 outside of the definition of the present species have not been considered). Claims containing these compounds within the scope of the present species would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Response to Arguments*

12. Applicant's arguments filed June 17, 2003 have been fully considered but they are not persuasive. Applicant argues "Nakatsuka et al. fail to disclose a fluoranthene skeleton structure comprising any substituted amine group or any substituted alkenyl group". As stated in the Advisory Action (mailed May 22, 2003), paper no. 16, the examiner again notes that the claims as presently recited do not require the "at least one amine or alkenyl" be substituted. Nakatsuka does disclose a substituent of the Nakatsuka compound (2) may include phenyl groups. This disclosure reads upon instant compound (3). The examiner does agree that Nakatsuka et al. fail to disclose the specific compounds of new claims 16 and 17 which read upon the present species under consideration; however, independent claim 13 has not been limited to only these specific compounds.

With regard to applicant's discussion of the comparative examples, the examiner submits that the comparative example 3, which is a compound disclosed by Nakatsuka et al., is a compound within applicant's claimed compound definition. In addition, the inventive compound applicant uses in the comparative example comprises both an amine group and an alkenyl group, which does not clearly demonstrate unexpected results with regard to adding just an alkenyl group to a fluoranthene group. It is respectfully noted that the inventive compounds do not require an amine group and accordingly, the comparative examples are not considered commensurate in scope with the breadth of the claim as presently recited.

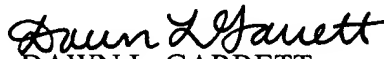
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*Conclusion*

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (703) 305-0788. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached at (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.

  
DAWN L. GARRETT  
PATENT EXAMINER  
TECHNOLOGY CENTER 1700

D.G.  
July 21, 2003